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TECH CENTER 1600/2900

SEQUENCE LISTING

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<120> Abundant Extracellular Products and
Methods for Their Production and Use

<130> 510030-143

<140> US 08/786,533

<141> 1997-01-21

<150> US 08/568,357

<151> 1995-12-06

<150> US 08/551,149

<151> 1995-10-31

<150> US 08/447,398

<151> 1995-05-23

<150> US 08/289,667

<151> 1994-08-12

<150> US 08/156,358

<151> 1993-11-23

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 acggtcaatg cgattcgcgg cagcgtcacg cccgcggctc cgcagttcaa tgcccgacc 300
 gccgacggca tcaactaccg ggtgctgtgg caagccgcgg gcccgcacac cattagcgga 360
 gccactatcc cccaaggcga acaatcgacc ggcaaatct acttcgatgt caccggccca 420
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<210> 93
 <211> 1437
 <212> DNA
 <213> Mycobacterium tuberculosis

<400> 93
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 gcctttgaca agagcgtgtt tgacgacggc ttggcctttg acggctcgtc gattcgcggg 180
 ttccagtcga tccacgaatc cgacatgttg cttcttcccg atcccgcagc ggcgcgcatc 240
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 ctggagccgt actcccgcga cccgcgcacc atcgccgcga aggcgcgagaa ctacctgatc 360
 agcactggca tcgcccgcac cgcatacttc ggccgcgagg ccgagttcta cattttcgat 420
 tcggtgagct tcgactcgcg cgccaacggc tccttctacg aggtggacgc catctcgggg 480
 tgggtggaaca ccggcgcggc gaccgagggc gacggcagtc ccaaccgggg ctacaaggtc 540
 cgccacaagg gcgggtatctt cccagtggcc cccaacgacc aatacgtcga cctgcgcgac 600
 aagatgctga ccaacctgat caactccggc ttcatcctgg agaagggcca ccacgaggtg 660
 ggcagcggcg gacagggcga gatcaactac cagttcaatt cgctgctgca cgccgcccga 720
 gacatgcagt tgtacaagta catcatcaag aacaccgcct ggcagaacgg caaacggtc 780
 acgttcatgc ccaagccgct gttcggcgac aacgggtccg gcatgcactg tcatcagtcg 840
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 ggggtgttca caaacgacct gatcgagacg tggatcagtt tcaagcgcga aaacgagatc 1380
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<210> 94

<211> 686
 <212> DNA
 <213> Mycobacterium tuberculosis

<400> 94
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 gccacggccg cgcccaagac ctactgcgag gagttgaaag gcaccgatac cggccaggcg 120
 tgccagattc aaatgtccga cccggcctac aacatcaaca tcagcctgcc cagttactac 180
 cccgaccaga agtcgctgga aaattacatc gccagacgc gcgacaagtt cctcagcgcg 240
 gccacatcgt ccactccacg cgaagcccc tacgaattga atatcacctc ggccacatac 300
 cagtccgcga taccgcccgc tggtagcgag gccgtgggtc tcaaggtcta ccagaacgcc 360
 ggcggcacgc acccaacgac cacgtacaag gccttcgatt gggaccaggc ctatcgcaag 420
 ccaatcacct atgacacgct gtggcaggct gacaccgatc cgctgccagt cgtcttcccc 480
 attgtgcaag gtgaactgag caagcagacc ggacaacagg tatcgatagc gccgaatgcc 540
 ggttggaacc ggtgaattat cagaacttcg cagtcacgaa cgacgggggtg attttcttct 600
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<210> 95
 <211> 899
 <212> DNA
 <213> Mycobacterium tuberculosis

<400> 95
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 cgtacagcat gtacaccaac tgggagcagg atggcagcaa gcagtgggac accttcttgt 360
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 ccgttggcgc cgctcagggc ggttacgggg cgatggcgct ggcggccttc caccgccacc 480
 gcttcggcct cgctggctcg atgtcgggct ttttgtacct gtcgaacacc accaccaacg 540
 gtgcgatcgc ggccggcatg cagcaattcg gcggtgtgga caccaacgga atgtggggag 600
 caccacagct gggtcggtgg aagtggcacg acccgtgggt gcatgccagc ctgctggcgc 660
 aaaacaacac ccgggtgtgg gtgtggagcc cgaccaaccc gggagccagc gatcccgcgg 720
 ccatgatcgg ccaagccgcc gaggcgatgg gtaacagccg catgttctac aaccagtatc 780
 gcagcgtcgg cgggcacaaac ggacacttcg acttcccagc cagcgggtgac aacggctggg 840
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<210> 96
 <211> 15
 <212> PRT
 <213> Mycobacterium tuberculosis

<400> 96
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<210> 97
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 <213> Mycobacterium tuberculosis

<400> 97
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 1 5 10 15

<210> 98
<211> 15
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<400> 98
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1 5 10 15

<210> 99
<211> 15
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<400> 99
Pro Ser Met Gly Arg Asp Ile Lys Val Gln Phe Gln Ser Gly Gly
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<211> 14
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<213> Mycobacterium tuberculosis

<400> 100
Asp Ile Lys Val Gln Phe Gln Ser Gly Gly Ala Asn Ser Pro
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<210> 101
<211> 15
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<213> Mycobacterium tuberculosis

<400> 101
Phe Gln Ser Gly Gly Ala Asn Ser Pro Ala Leu Tyr Leu Leu Asp
1 5 10 15

<210> 102
<211> 15
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<213> Mycobacterium tuberculosis

<400> 102
Ala Asn Ser Pro Ala Leu Tyr Leu Leu Asp Gly Leu Arg Ala Gln
1 5 10 15

<210> 103
<211> 15
<212> PRT
<213> Mycobacterium tuberculosis

<400> 103
Leu Tyr Leu Leu Asp Gly Leu Arg Ala Gln Asp Asp Phe Ser Gly
1 5 10 15

<210> 104
<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 104

Gly	Leu	Arg	Ala	Gln	Asp	Asp	Phe	Ser	Gly	Trp	Asp	Ile	Asn	Thr
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<210> 105

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 105

Asp	Asp	Phe	Ser	Gly	Trp	Asp	Ile	Asn	Thr	Pro	Ala	Phe	Glu	Trp
1				5					10					15

<210> 106

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 106

Trp	Asp	Ile	Asn	Thr	Pro	Ala	Phe	Glu	Trp	Tyr	Asp	Gln	Ser	Gly
1				5					10					15

<210> 107

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 107

Pro	Ala	Phe	Glu	Trp	Tyr	Asp	Gln	Ser	Gly	Leu	Ser	Val	Val	Met
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<210> 108

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 108

Tyr	Asp	Gln	Ser	Gly	Leu	Ser	Val	Val	Met	Pro	Val	Gly	Gly	Gln
1				5					10					15

<210> 109

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 109

Leu	Ser	Val	Val	Met	Pro	Val	Gly	Gly	Gln	Ser	Ser	Phe	Tyr	Ser
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<210> 110

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 110
Pro Val Gly Gly Gln Ser Ser Phe Tyr Ser Asp Trp Tyr Gln Pro
1 5 10 15

<210> 111
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<213> Mycobacterium tuberculosis

<400> 111
Ser Ser Phe Tyr Ser Asp Trp Tyr Gln Pro Ala Cys Gly Lys Ala
1 5 10 15

<210> 112
<211> 15
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<213> Mycobacterium tuberculosis

<400> 112
Asp Trp Tyr Gln Pro Ala Cys Gly Lys Ala Gly Cys Gln Thr Tyr
1 5 10 15

<210> 113
<211> 15
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<213> Mycobacterium tuberculosis

<400> 113
Ala Cys Gly Lys Ala Gly Cys Gln Thr Tyr Lys Trp Glu Thr Phe
1 5 10 15

<210> 114
<211> 15
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<213> Mycobacterium tuberculosis

<400> 114
Gly Cys Gln Thr Tyr Lys Trp Glu Thr Phe Leu Thr Ser Glu Lys
1 5 10 15

<210> 115
<211> 15
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<213> Mycobacterium tuberculosis

<400> 115
Lys Trp Glu Thr Phe Leu Thr Ser Glu Leu Pro Gly Trp Leu Gln
1 5 10 15

<210> 116
<211> 15
<212> PRT
<213> Mycobacterium tuberculosis

<400> 116
Leu Thr Ser Glu Leu Pro Gly Trp Leu Gln Ala Asn Arg His Val
1 5 10 15

<210> 117
<211> 15
<212> PRT
<213> Mycobacterium tuberculosis

<400> 117
Pro Gly Trp Leu Gln Ala Asn Arg His Val Lys Pro Thr Gly Ser
1 5 10 15

<210> 118
<211> 15
<212> PRT
<213> Mycobacterium tuberculosis

<400> 118
Ala Asn Arg His Val Lys Pro Thr Gly Ser Ala Val Val Gly Lys
1 5 10 15

<210> 119
<211> 15
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<213> Mycobacterium tuberculosis

<400> 119
Ala Pro Thr Gly Ser Ala Val Val Gly Leu Ser Met Ala Ala Ser
1 5 10 15

<210> 120
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<213> Mycobacterium tuberculosis

<400> 120
Ala Val Val Gly Leu Ser Met Ala Ala Ser Ser Ala Leu Thr Leu
1 5 10 15

<210> 121
<211> 15
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<213> Mycobacterium tuberculosis

<400> 121
Ser Met Ala Ala Ser Ser Ala Leu Thr Leu Ala Ile Tyr His Pro
1 5 10 15

<210> 122
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<400> 122
Ser Ala Leu Thr Leu Ala Ile Tyr His Pro Gln Gln Phe Val Tyr
1 5 10 15

<210> 123
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<212> PRT

<213> Mycobacterium tuberculosis

<400> 123

Ala Ile Tyr His Pro Gln Gln Phe Val Tyr Ala Gly Ala Met Ser
1 5 10 15

<210> 124

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 124

Gln Gln Phe Val Tyr Ala Gly Ala Met Ser Gly Leu Leu Asp Pro
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<210> 125

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 125

Ala Gly Ala Met Ser Gly Leu Leu Asp Pro Ser Gln Ala Met Gly
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<210> 126

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 126

Gly Leu Leu Asp Pro Ser Gln Ala Met Gly Pro Thr Leu Ile Gly
1 5 10 15

<210> 127

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 127

Ser Gln Ala Met Gly Pro Thr Leu Ile Gly Leu Ala Met Gly Asp
1 5 10 15

<210> 128

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 128

Ser Thr Leu Ile Gly Leu Ala Met Gly Asp Ala Gly Gly Tyr Lys
1 5 10 15

<210> 129

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 129
Leu Ala Met Gly Asp Ala Gly Gly Tyr Lys Ala Ser Asp Met Trp
1 5 10 15

<210> 130
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Ala Gly Gly Tyr Lys Ala Ser Asp Met Trp Gly Pro Lys Glu Asp
1 5 10 15

<210> 131
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<400> 131
Ala Ser Lys Met Trp Gly Pro Lys Glu Asp Pro Ala Trp Gln Arg
1 5 10 15

<210> 132
<211> 15
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<400> 132
Gly Pro Lys Glu Asp Pro Ala Trp Gln Arg Asn Asp Pro Leu Leu
1 5 10 15

<210> 133
<211> 15
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<213> Mycobacterium tuberculosis

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1 5 10 15

<210> 134
<211> 15
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<213> Mycobacterium tuberculosis

<400> 134
Asn Asp Pro Leu Leu Asn Val Gly Lys Leu Ile Ala Asn Asn Thr
1 5 10 15

<210> 135
<211> 15
<212> PRT
<213> Mycobacterium tuberculosis

<400> 135
Asn Val Gly Lys Leu Ile Ala Asn Asn Thr Arg Val Trp Val Tyr
1 5 10 15

<210> 136
<211> 15
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<213> Mycobacterium tuberculosis

<400> 136
Ile Ala Asn Asn Thr Arg Val Trp Val Tyr Cys Gly Asn Gly Lys
1 5 10 15

<210> 137
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<213> Mycobacterium tuberculosis

<400> 137
Arg Val Trp Val Tyr Cys Gly Asn Gly Lys Pro Ser Asp Leu Gly
1 5 10 15

<210> 138
<211> 15
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<213> Mycobacterium tuberculosis

<400> 138
Cys Gly Asn Gly Lys Pro Ser Asp Leu Gly Gly Asn Asn Leu Pro
1 5 10 15

<210> 139
<211> 15
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<213> Mycobacterium tuberculosis

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1 5 10 15

<210> 140
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1 5 10 15

<210> 141
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<213> Mycobacterium tuberculosis

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Gly Lys Phe Leu Glu Gly Phe Val Arg Thr Ser Asn Ile Lys Phe
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<210> 142
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<212> PRT
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 <210> 143
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 1 5 10 15

 <210> 144
 <211> 15
 <212> PRT
 <213> Mycobacterium tuberculosis

 <400> 144
 Gln Asp Ala Tyr Asn Ala Gly Gly Gly His Asn Gly Val Phe Asp
 1 5 10 15

 <210> 145
 <211> 15
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 <213> Mycobacterium tuberculosis

 <400> 145
 Ala Gly Gly Gly His Asn Gly Val Phe Asp Phe Pro Asp Ser Gly
 1 5 10 15

 <210> 146
 <211> 15
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 <213> Mycobacterium tuberculosis

 <400> 146
 Asn Gly Val Phe Asp Phe Pro Asp Ser Gly Thr His Ser Trp Glu
 1 5 10 15

 <210> 147
 <211> 15
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 <400> 147
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 1 5 10 15

 <210> 148
 <211> 15
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 <213> Mycobacterium tuberculosis

<400> 148
Thr His Ser Trp Glu Tyr Trp Gly Ala Gln Leu Asn Ala Met Lys
1 5 10 15

<210> 149
<211> 15
<212> PRT
<213> Mycobacterium tuberculosis

<400> 149
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1 5 10 15

<210> 150
<211> 15
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<213> Mycobacterium tuberculosis

<400> 150
Leu Asn Ala Met Lys Pro Asp Leu Gln Arg Ala Leu Gly Ala Thr
1 5 10 15

<210> 151
<211> 15
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<213> Mycobacterium tuberculosis

<400> 151
Pro Asp Leu Gln Arg Ala Leu Gly Ala Thr Pro Asn Thr Gly Pro
1 5 10 15

<210> 152
<211> 15
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<400> 152
Ala Leu Gly Ala Thr Pro Asn Thr Gly Pro Ala Pro Gln Gly Ala
1 5 10 15

<210> 153
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 153
Phe Ser Arg Pro Gly Leu Pro Val Glu Tyr Leu Gln Val Pro Ser Pro
1 5 10 15
Ser Met

<210> 154
<211> 16
<212> PRT
<213> Mycobacterium tuberculosis

<400> 154

Asp Ile Lys Val Gln Phe Gln Ser Gly Gly Ala Asn Ser Pro Ala Leu
1 5 10 15

<210> 155

<211> 17

<212> PRT

<213> Mycobacterium tuberculosis

<400> 155

Pro Val Gly Gly Gln Ser Ser Phe Tyr Ser Asp Trp Tyr Gln Pro Ala
1 5 10 15
Cys

<210> 156

<211> 17

<212> PRT

<213> Mycobacterium tuberculosis

<400> 156

Ser Met Ala Ala Ser Ser Ala Leu Thr Leu Ala Ile Tyr His Pro Gln
1 5 10 15
Gln

<210> 157

<211> 18

<212> PRT

<213> Mycobacterium tuberculosis

<400> 157

Pro Gln Gln Phe Val Tyr Ala Gly Ala Met Ser Gly Leu Leu Asp Pro
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Ser Gln

<210> 158

<211> 17

<212> PRT

<213> Mycobacterium tuberculosis

<400> 158

Cys Gly Asn Gly Lys Pro Ser Asp Leu Gly Gly Asn Asn Leu Pro Ala
1 5 10 15
Lys

<210> 159

<211> 16

<212> PRT

<213> Mycobacterium tuberculosis

<400> 159

Phe Gln Asp Ala Tyr Asn Ala Gly Gly Gly His Asn Gly Val Phe Asp
1 5 10 15

<210> 160

<211> 14

<212> PRT

<213> Mycobacterium tuberculosis

<400> 160

Pro Asp Leu Gln Arg Ala Leu Gly Ala Thr Pro Asn Thr Gly
1 5 10

